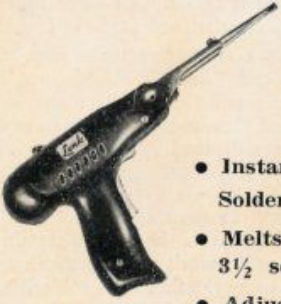
Lenk

Instructions for
GOOD SOLDERING

No. 77LP

Liquefied Petroleum Torch with Replacement Fuel Tanks, Exclusive 2-in-1 Burner — Instant Lighting, Needle-Point & Blast Flames.



No. 501

- **Instant-Heat Soldering Iron.**
- **Melts solder in 3½ seconds.**
- **Adjustable Swivel Tip for any Angle Soldering.**
- **Light follows work automatically.**

SOFT SOLDERING

The term "Soft Soldering" applies to the joining of common metals, such as copper, brass, steel (except stainless), galvanized iron, etc., with a bonding agent composed of tin and lead. This bonding agent is known as "Soft Solder" and is the type usually found in the local Hardware, Chain or Variety Store.

Soft Solder alone will not bond two pieces of metal. A "marrying" agent is necessary which is called a "flux". The purpose of this flux is to remove surface oxides, which will prevent the solder from adhering to the metal, and it also aids in directing the flow of the solder to the parts that are to be soldered.

The two most commonly used fluxes are known as "Acid" and "Rosin". Acid flux is quick acting, but must be washed away after the soldering operation is completed, because if it is allowed to remain on the metal, it will tend to cause corrosion and will destroy a painted surface that might be applied to the finished work. Rosin flux is slower acting but is of a milder nature and in most cases will be dissipated enough by the application of heat. In certain types of soldering, such as radio work and electrical work, it is impossible to wash away the flux after soldering. In these instances, Rosin flux should be used. However, in soldering operations where the soldered part can be cleaned, the use of Acid flux is desirable.

For the average user, it is more convenient to use a solder that is manufactured with a self-contained flux. These are known as "core" solders and are available in both Acid and Rosin type.

If the novice will carefully follow the few simple directions that are listed, he will be surprised at the skill that can be attained with a small amount of practice. These steps are as follows:

1. *Thoroughly cleanse the surfaces to be soldered.* — This is done by carefully scraping away with a file or abrasive, all foreign matter, such as rust, corrosion,

dirt, etc. If the metal is chromium or nickel plated, the plate coating must be removed as well. Always remember — solder will not adhere to an unclean surface.

2. *Tin the tip of the iron.* — When the tip of the soldering iron has reached a temperature that will melt solder, rub the solder that you intend to use on all the flat surfaces of the soldering iron tip until it is completely coated. This is known as "tinning" and prevents oxides from forming on the tip of the iron during soldering operations.

3. *Applying Solder.*

A. *With a Soldering Iron* — place one or more of the flat surfaces of the soldering iron tip against the work that is to be soldered. When the work has become sufficiently hot enough to melt solder at the point where the joining is to be made, apply the solder. If a large seam is to be soldered, the soldering iron should be drawn along the seam slowly to thoroughly heat the parts. Follow the path of the soldering iron with the solder, allowing it to flow into the seam.

B. *With a Blow Torch* — apply flame to work until it is hot enough to melt solder. Remove the flame and apply solder to parts that are to be joined.

Due care should be taken to avoid disturbing the work until the solder has hardened or "set".

• • SPECIAL HINTS

- Always apply solder directly to the work; don't use the iron to spread the solder or carry it to the work.
- A small connection, such as a stranded wire joint, can be soldered better from below, as the heat will draw the solder upwards.
- To remove surplus solder from tip, wipe it off with a rag or piece of paper.
- Screwing the tip back and forth occasionally when the iron is not in use will always keep it in condition to be removed easily. (Do not oil threads.)
- Replacement tips can be procured upon application.

SOLDERING ALUMINUM
with
Lenk SUPER ALUMINUM SOLDER

The aluminum surface to be soldered should be clean from dirt, grease and all foreign substance. Scrape the parts to be soldered with a rasp, scraper or wire brush. (A blunt instrument such as a broken hack saw blade is ideal.) This enables one to get beneath the surface film of oxide and effect a strong "bite".

Surfaces not exposed should be cleaned as well as possible with gasoline.

Heat the parts to be soldered until the solder flows when it is rubbed upon the surface to be soldered. Then apply with a soldering iron or a blow torch, rubbing the solder well into the body of the aluminum.

LENK SUPER ALUMINUM SOLDER melts at 410° Fahr. Aluminum melts at 1215° Fahr. Hence there is a sufficient safety factor to prevent distortion of the parts to be soldered.

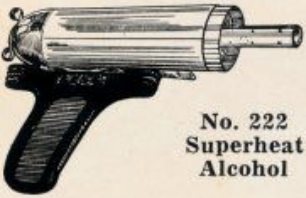
Avoid playing the flame directly on the surface to be soldered. After the initial "tinning" or coverage of solder well rubbed in, apply another coat. Do this to each of the two surfaces and then hold them together firmly — reheat — and squash all excess solder from the joint. Keep firmly together until cooled. Do not touch.

For soldering aluminum to brass, copper or any other metal that can be soldered, tin the aluminum as described above. Tin the other metal with ordinary solder. Fuse the surfaces together by applying heat similar to the manner described above. If additional solder is necessary, apply aluminum solder. Keep the joint firm and allow to cool gradually.

DO NOT USE ACIDS OR FLUX ON ALUMINUM

DO NOT USE EMERY CLOTH TO CLEAN SURFACES

Lenk BLOTORCHES



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ALUMINUM BAR SOLDER

Lenk

FLUX

SOLDER

Acid or Rosin Core

Lenk Solders are available in a wide variety of mixtures and sizes — 1 lb., ½ lb., and ¼ lb. Spools — all carrying the 35 year old Lenk reputation for quality.

Your favorite Hardware, Chain or Automotive store carries Lenk Products.

THE *Lenk*

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30-38 Cummington Street
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